

Applicants: Matthew Morrell et al.  
Serial No.: 10/018,418  
Filed : May 9, 2002  
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#### **REMARKS**

Claims 67-75, 80, 82 and 85-91 were pending in the subject application. By this Amendment applicants have canceled claim 91 without prejudice, and amended claims 67, 68, 69, 72, 75, 80, 86, 87 and 88. Accordingly, claims 67-75, 80, 82 and 85-90 are pending and under examination.

Applicants are pleased to note that a number of objections and rejections have been withdrawn as detailed in items 2-5 of the January 31, 2005 Office Action.

#### **Claim Objections**

In Section 6 of the January 31, 2005 Office Action, the Examiner objected to Claims 73 and 71 as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

In response, applicants have amended claim 67 as suggested by the Examiner to place it in condition for allowance. Thus, claims 71 and 73 are now dependent on an allowable base claim.

The Examiner also objected to claim 74 for reciting, "isolate" instead of -isolated- in line 2.

In response, applicants have corrected this typographical error.

#### **Rejections under 35 U.S.C. §112, first paragraph**

On page 3 in Section 7 of the January 31, 2005 Office Action the Examiner rejected claims 68, 69, 72, 75, 80, 82, and 85 under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement. The Examiner alleged

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that the claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention as stated in the April 2, 2004 Office Action.

The Examiner noted applicants' prior remarks, but alleged that the claims still encompass nucleic acid molecules that can encode any starch synthase activity, and the specification indicates that four classes of starch synthases have been identified in plants: GBSS, SSI, SSII, and SSIII (page 8, lines 8-15), where SEQ ID NO:4 is an SSII enzyme. The Examiner alleged that nucleotide sequence of SEQ ID NO:3 and the amino acid sequence of SEQ ID NO:4 are not correlated with any other type of activity, and suggested that the claims be amended to indicate that the starch synthase is starch synthase --II--. The Examiner also noted that claim 75 encompasses SEQ ID NOs:26 and 27, and suggested that parts (I) and (ii) of claim 75 be removed.

In response, without conceding the correctness of the Examiner's position, but merely to advance prosecution, applicants have amended the claims as suggested by the Examiner. Accordingly, the rejection under 35 U.S.C. §112, first paragraph, is moot.

**Rejection under 35 U.S.C. § 112, first paragraph**

On pages 3-5 in Section 8 of the January 31, 2005 Office Action, the Examiner maintained the rejection of claims 68, 69, 72, 75, 80, 82, and 85 remain, and added a rejection of claims 67, 70, 74, and 86-91, under 35 U.S.C. § 112, first paragraph.

The Examiner noted applicants' prior remarks but alleged that the claims still encompass isolated nucleic acid molecules that can encode any starch synthase enzyme, whereas SEQ ID NO:4 is a

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starch synthase II, and that claim 75 still encompasses probes and primers set forth in SEQ ID Nos: 26 and 27. The Examiner alleged that, as noted in the last Office action, SEQ ID Nos: 25-28 are non-elected SEQ ID NO:1, and again suggested that the claims be amended as discussed above.

In response to this portion of the rejection, applicants have amended the claims as suggested by the Examiner. Accordingly, this portion of the rejection is moot.

The Examiner further alleged that claim 80 still indicates that the enzyme activity of one or more starch synthase isoenzymes is modified, and that the specification does not indicate how enzyme activity, as opposed to nucleic acid expression, is affected by the claimed method. The Examiner suggested that lines 5-6 of the claim be amended to indicate that the expression level of starch synthase II is decreased.

In response to this portion of the rejection, applicants have amended claim 80 to recite that the method comprises a step performed "under conditions sufficient for the expression of a gene encoding one or more starch synthase II isoenzymes to be modified." This amendment to claim 80 addresses the Examiner's concern by clarifying that it is the expression of the gene that gets modified, not the starch synthase II isoenzyme.

The Examiner also maintained the rejection of claim 91, asserting that it is unclear how one skilled in the art is to use a gene construct or vector comprising the probe or primer of claim 74.

In response to this portion of the rejection, applicants have canceled claim 91 without prejudice but solely to advance the prosecution of the subject application.


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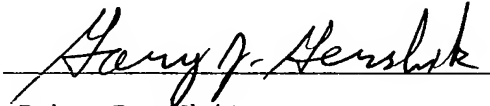
Applicants respectfully submit that the amendments to the claims herein have overcome all of the stated grounds of rejection. Accordingly, applicants respectfully request that the rejections and objection set forth in the January 31, 2005 Office Action be withdrawn and a Notice of Allowance be issued for all of the pending claims.

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No fee, other than the enclosed \$120.00 fee for a one-month extension is deemed necessary in connection with the filing of this Amendment. However, if any other fee is required, authorization is hereby given to charge the amount of any such fee to Deposit Account No. 03-3125.

Respectfully submitted,

I hereby certify that this correspondence is being deposited this date with the U.S. Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.	
	5/31/05
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